BAUER

BOSCH

VCC 550 AF

S VHS MOVIE

S VHS 625 VHS PAL

Video Camera Recorder PROFESSIONAL

**Bedienungsanleitung
Operating Instructions
Mode d'emploi**

VQT2853

CONTENTS

FEATURES

Piezo Auto Focus

The focus is automatically and precisely adjusted under most shooting situations. There is no need to manually adjust the focus; manual focus adjustment is also possible.

The S-VHS Movie Uses Standard S-VHS Video Cassettes

This allows a maximum recording time of a full 3 hours on a single cassette.

Cue and Review Playback

Convenient for fast-forwarding or rewinding the tape while watching the picture.

Compact and Light

With a weight of only 2.7 kg, the S-VHS Movie is handy to use and carry along.

Power Supply

The S-VHS Movie can be operated on 3 different power sources: rechargeable battery pack, AC adaptor, and battery pack of car or boat.

Auto White Balance

The white balance is fully automatically adjusted and continuously readjusted to any changes in illumination during shooting. Manual adjustment is also possible.

Alarm Indications

Various warning indications prevent operating mistakes and always provide successful results.

10×Power Zoom Lens

Powerful smooth zooming between wide-angle and telephoto with convenient push-button control.

High Speed Shutter Function

This function makes it possible to catch even fast action with sharp contours and amazing detail.

Audio Dubbing Function

The Audio Dubbing function allows replacing the originally recorded sound with narration, back-ground music or special sound effects.

Insert Editing

For inserting new scenes into an already recorded video tape. Inserting new scenes into an already recorded video tape.

Equipped with Flying (Rotary) Erase Head

The built-in flying erase head makes possible assemble editing and insert editing free from colour distortion and colour stripes at the editing points.

HQ (High Quality) Picture System

Video recorders carrying the HQ symbol mark feature the new VHS High Quality Picture System. This system assures complete compatibility with VTRs that use the conventional VHS system.
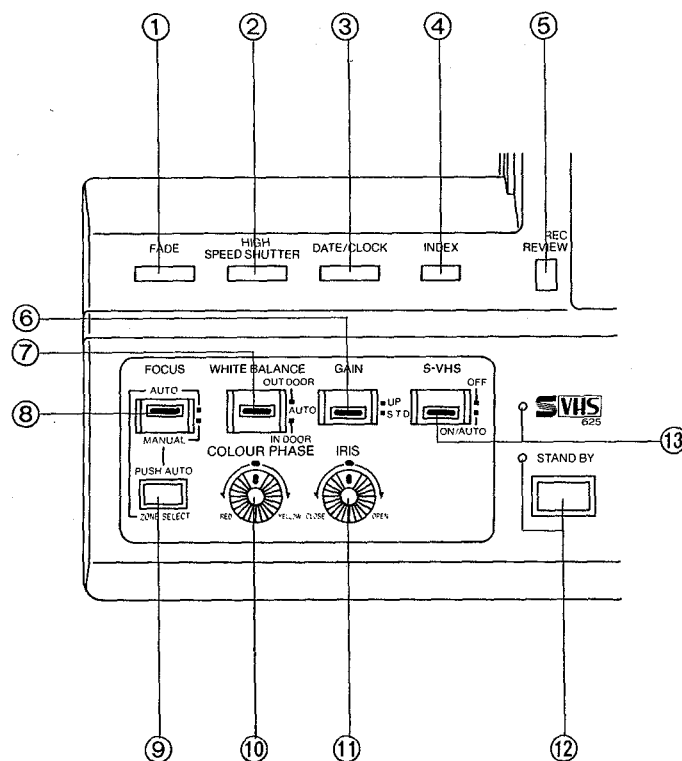
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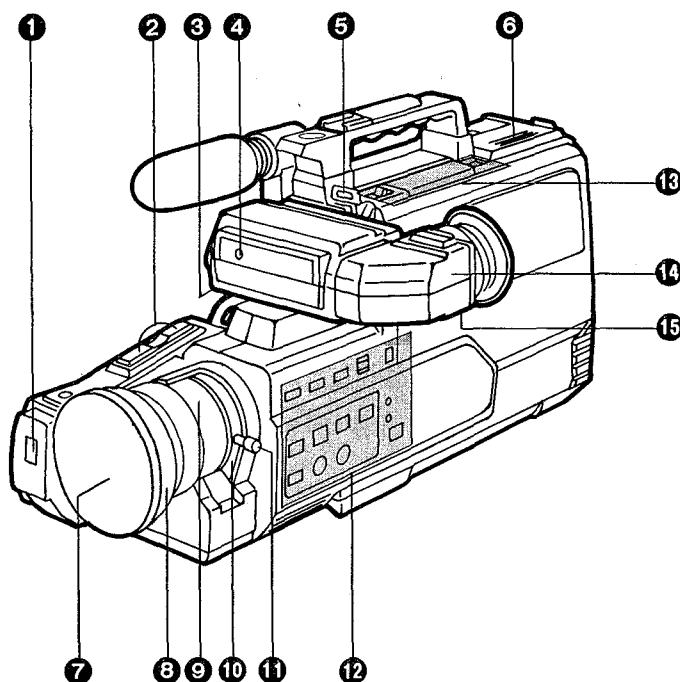
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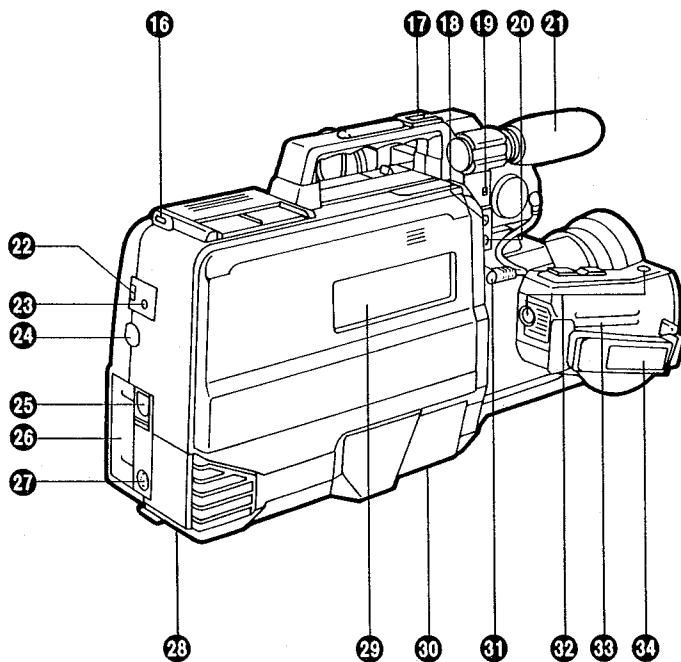
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⑫ Main Operation Controls

⑯ General Operation Controls

❻ Tape Running Buttons

⑧ Function of the Camera/VTR Selector Cover

Closed	....	For camera recording.
Open (as illustrated)	....	For recorder operation modes.

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23:59
25.12.1988

Warning/Alarm Indications
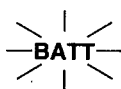
—BATT—   There is little battery power left. The S-VHS Movie will be turned off in a few minutes. Replace the battery pack with a fully recharged one.

—TAPE—   It is impossible to record because the erasure prevention tab of the cassette is not intact.

END   During recording, the tape has reached its end. Replace the tape with a new one.

—DEW—   When condensation has formed inside the S-VHS Movie, the "DEW" indicator will flash and a few seconds later, the unit will turn itself off to protect the tape and the video heads.

❶ Remaining Battery Power/Index Indication

E----F   The "▬" indications begin to disappear from right to left as the power of the battery pack weakens.

INDEX   This indicator flashes when a recording is started or when the Index Signal Recording Button is pressed and it indicates that an index signal is being recorded.

❷ Counter Indication

M0123   Tape Counter
1:23.45   Lap Time Counter

❸ Clock Indication

❹ Date Indication

❺ Recording/Insert Indication

REC   Recording
———   Recording Pause
INST   Insert
———   Insert Pause

❻ S-VHS System Indication

S VHS   S-VHS System
"   "   VHS System

❼ High Speed Shutter Mode Indication | **Manual White Balance indication**

1/250	1/250 sec.	OUT	OUTDOOR
1/500	1/500 sec.	IN	INDOOR
1/1000	1/1000 sec.		

●Some of the above indications may light up alternately at the same place in the EVF to indicate the corresponding operating condition or warning.
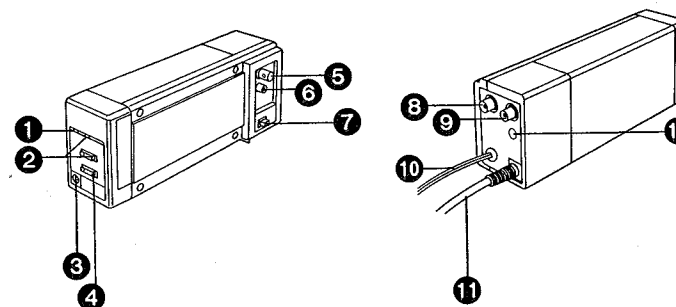
AC Adaptor

Precautions

- Avoid violent shocks and rough handling of the unit.
- Do not allow liquid to spill into the unit.
- Do not place heavy objects on the unit.
- When unplugging the mains cord or other connection cords, be sure to grasp the plug, not the cord.
- Do not block or cover the ventilation slots on the top and side of the unit.

Controls and Components

RF Channel Selector ⑫
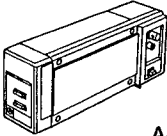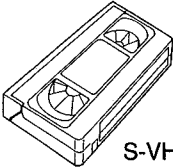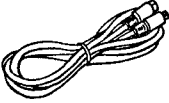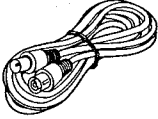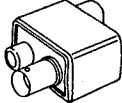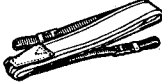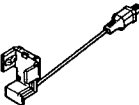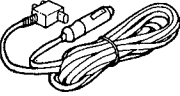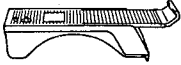
For adjusting the video playback channel. For reproduction through the aerial connection of your TV, the Power Adaptor is equipped with a small TV transmitter (RF converter) which transmits on UHF channel 36. You should therefore tune the TV to UHF channel 36. If UHF channel 36 is already occupied by a TV station in your area, the video playback channel can be changed between channel 32 and 40 on the back of the unit by using a small screwdriver.

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AC Adaptor (supplied)	Battery Pack (supplied)	S-VHS Video Cassette (supplied)	Battery for Clock Operation (supplied)
S-Video Cord (supplied)	DIN-DIN Coaxial Cable (supplied)	Cloth for Cleaning the Lens (supplied)	AV Converter Connector (supplied)
Earphone (supplied)	Shoulder Strap (supplied)	Battery Pack Charging Connector (supplied)	Pause Remote Control Unit (optional)
Car Battery Cord (optional)	Shoulder Pad (optional)	Character Generator (optional)	

About the S-VHS Format

S VHS
625

The S-VHS video format is the new video system that fulfills the exceedingly high demands and expectations of today's video-information age.

It is newly developed based on the VHS video format established throughout the world for home use and employs a wealth of latest technology to provide higher resolution and picture quality. The newly developed, high-performance S-VHS video cassette tapes enable the S-VHS format to realize truly epoch-making improvements in overall picture quality and clarity.

This S-VHS camera recorder allows high picture quality recording and playback by using the video cassettes carrying the **S VHS** mark as well as conventional VHS recording and playback on the video cassettes bearing the **VHS** mark.

Compatibility of VTRs and Tapes

When Recording

S-VHS Cassette Tape for Recording → Recording with the VCC550AF → Recorded Tape (S-VHS Format / VHS Format)

Set the S-VHS System Selector to "ON/AUTO" (S-VHS format) or to "OFF" (VHS format).

Conventional VHS Cassette Tape for Recording → Recording with the VCC550AF → Recorded Tape (VHS Format)

The recording is made in the VHS format irrespective of the position to which the S-VHS System Selector is set.

When Playing Back
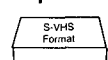
Recorded Cassette Tape (S-VHS Format) → VCC550AF or other S-VHS VTR
- The video format of the recorded cassette will automatically be selected for playback.

Recorded Cassette Tape (VHS Format) → Conventional VHS VTR
- Playback of a cassette recorded in the S-VHS format is not possible.

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THE POWER SUPPLY UNITS

Inserting the Battery Pack (supplied)

This side up

Battery Pack

Battery compartment

Removing the Battery Pack

Battery Eject Button
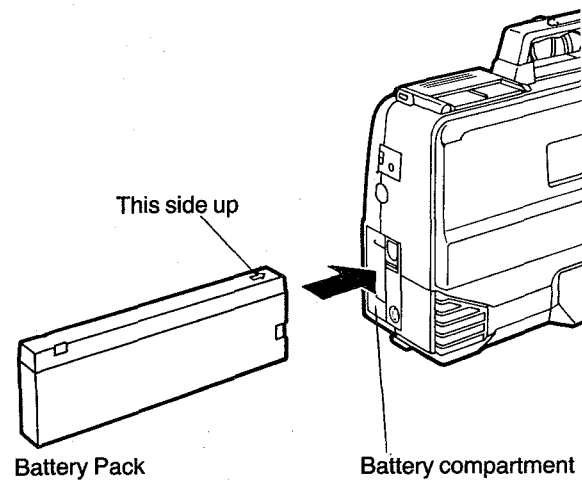
Insert the Battery Pack into the battery compartment of the S-VHS Movie. Slide it in until it clicks into place.
●Always use a fully charged Battery Pack.
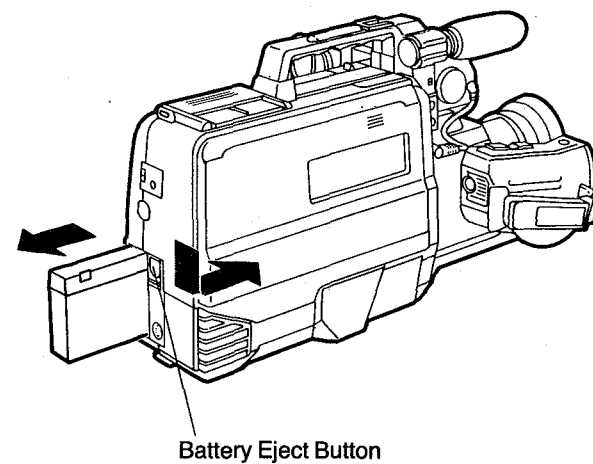
To remove the Battery Pack, release it by pressing the Battery Eject Button down and in, then slide the Battery Pack out.

1 Standby

AC Adaptor

Adaptor Cable

3 To Mains
Socket

"ON"

2 Adaptor
Socket

4 Operate
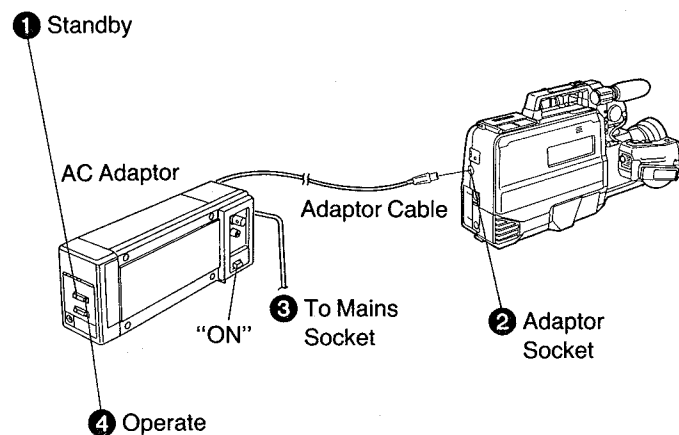
●It is possible to recharge two Battery Packs simultaneously by using the supplied AC Adaptor (see page 60).

1 Connect the car battery cord.

Cigarette Lighter Socket

Connecting Cord (optional)

2 Adaptor Socket
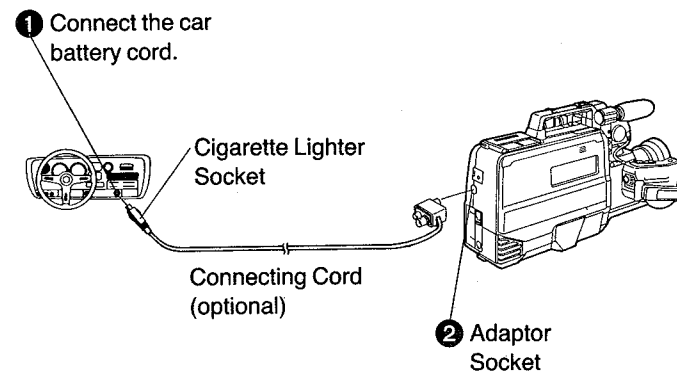
●The car battery cord can only be used with 12 V DC negative-grounded vehicles.
●Do not start the car engine while the S-VHS Movie is powered by the car battery.
●If the supplied voltage from the vehicle drops too low, the S-VHS Movie will turn off automatically to prevent any malfunctioning. When this happens, wait about 10 seconds before switching the S-VHS Movie on again.

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Charging the Battery Pack

"CHARGE" Lamp

1 OFF

5 To Mains Socket

"ON"

6 Operate

4 Insert Battery Pack

3 Adaptor Socket

2 Standby
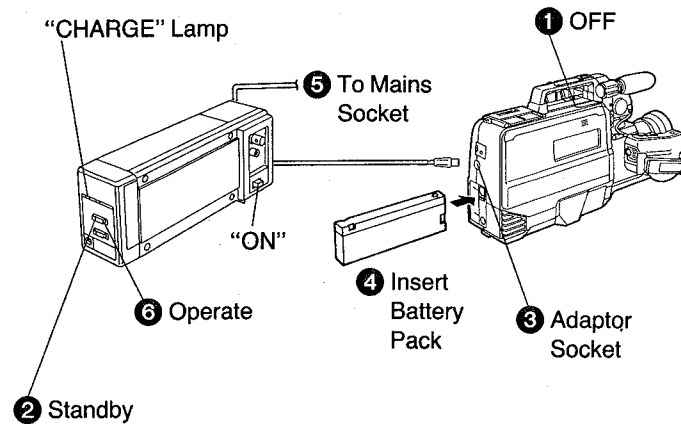
●The Charging Indicator will go out about 90 minutes after charging starts. However, the Battery Pack should be charged at least 3 hours for extended use.

Use the Battery Pack Charging Connector provided with the AC Adaptor.

"CHARGE" Lamp

1 Standby

3 To Mains Socket

"ON"

4 Operate

Battery Pack Charging Socket

2 Connect Battery Pack

Battery pack charging connector
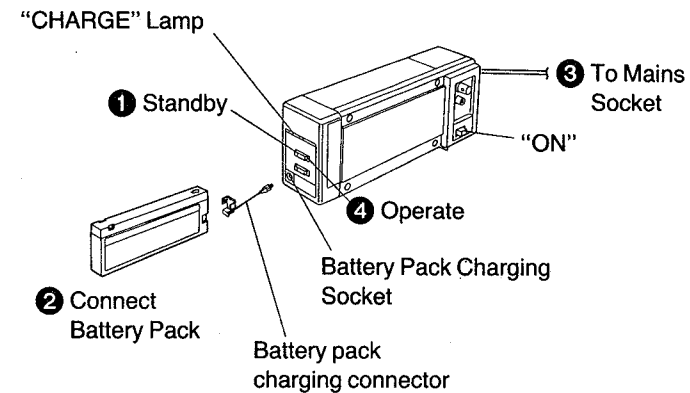
●It is possible to charge two battery packs simultaneously—one connected to the AC Adaptor and another inserted in the S-VHS Movie. However, charging them at the same time takes twice as long as charging them separately.

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Operating Time with the Battery Pack

●This S-VHS Movie can record continuously for approx. two hours at normal temperatures (25°C) with a fully charged battery pack (supplied).
If the S-VHS Movie is used for recording intermittently or at low temperatures, the total possible recording time will be reduced. It is recommended to turn off the S-VHS Movie or switch over to the standby mode when not actually recording.

●Never use an insufficiently charged or exhausted battery pack. If you use such a battery pack, voltage drops during recording or playback will cause the S-VHS Movie to be switched off to protect the battery pack and the S-VHS Movie itself.

●The battery pack can become exhausted not only during recording and playback, but also when it is in the standby mode for long periods of time. It is recommended to always carry several battery packs along.

To Extend the Battery Life

1. Be sure to recharge the battery pack soon after use. If the battery pack is left in discharged condition for a long period of time, it may not be possible to recharge it.

2. Be sure to recharge the battery pack before use. If the battery pack was not used for a long time after recharging it, the charging capacity may have been reduced due to self-discharging.

3. Be sure to recharge the battery pack once every six months even if it is not used.

4. To protect the battery pack, avoid recharging it for more than 24 hours.
●Do not overcharge nor completely discharge battery packs.

5. Store it in a dry and cool place.

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THE VIDEO CASSETTE

Window
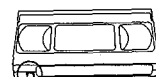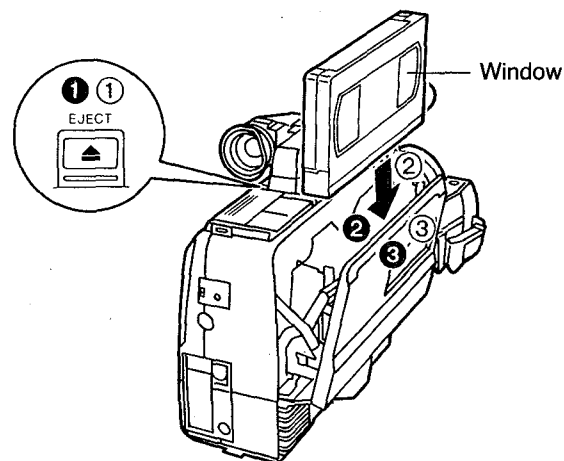
Erasure Prevention Tab

To prevent accidental erasure

Break off the tab with a screwdriver.

To record again

Cover the hole with adhesive tape.

❶ Press the Eject Button.

❷ Insert the video cassette into the cassette compartment with its window facing outside.

❸ Push the cassette compartment cover inward, until it locks with a click.

●Use S VHS and VHS video cassettes only.
●When a power supply unit (Battery Pack, AC Adaptor or car battery) is connected to the S-VHS Movie, the Eject Button remains operative, even if the S-VHS Movie has been switched off with the Operation On/Off Switch.

① Press the Eject Button.

② Pull out the video cassette.

③ Push the cassette compartment cover inward, until it locks with a click, to close the cassette compartment.

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ELECTRONIC VIEWFINDER

Rotate the electronic viewfinder

Turn the EVF outward until it locks with a click.
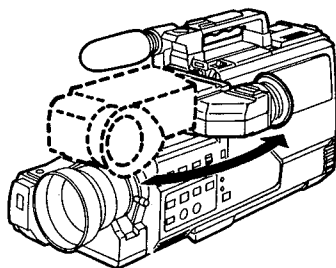
To move the viewfinder back to its original position

❶ Pull the viewfinder outside.

❷ Turn it forward toward the lens, as shown.

❸ Then slide the viewfinder backward again.
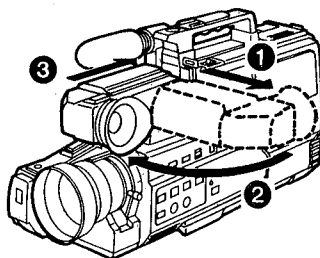
Use in Other Positions

The eyepiece assembly can be turned vertically 180° to allow for any shooting position.
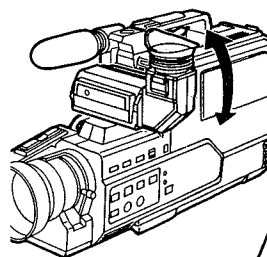
Eyecup
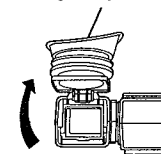
Open upward

To watch the picture in the viewfinder from some distance, swing up the eyecup.

Pull the EVF outward and adjust it to the most comfortable viewing position.

Eyepiece Corrector

This control makes it possible for people who wear glasses to adjust the eyepiece to their eyesight.

Underside of the EVF

Eyepiece
Corrector
Control

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Tally Indicator

Tally Indicator On/Off Switch
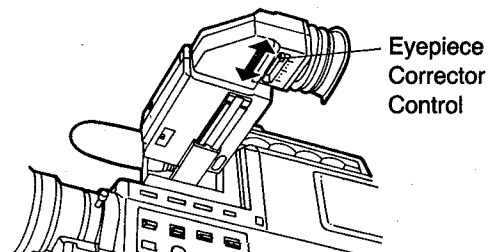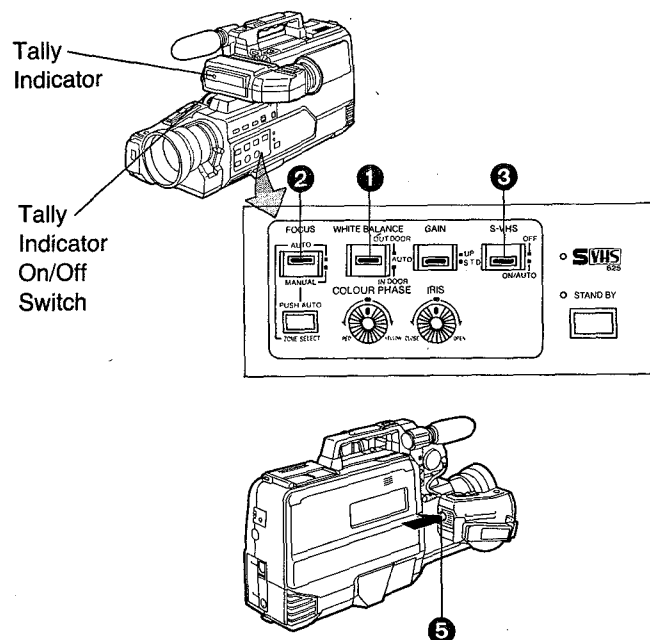
S-VHS System Selector

ON/AUTO: S-VHS cassette tapes are automatically re-corded in the S-VHS format and VHS cassette tapes are automatically recorded in the VHS format.

●When recording in the S-VHS format, the S-VHS Format Indicator will be lit.

OFF: To make a recording in the VHS format on an S-VHS cassette tape.

Preparation

1. Slide the Camera/VTR Selector Cover on top of the S-VHS Movie forward so that it covers the Tape Running Buttons.
2. Slide the Operation On/Off Switch (OPERATE) to the right to turn the S-VHS Movie on.
3. Insert a video cassette with erasure prevention tab.
   ●A few seconds later, the S-VHS Movie will change over to the recording pause mode.

❶ Set the White Balance Mode Selector to "AUTO". For more details, see page 78.

❷ Set the Focus Mode Selector to "AUTO". For more details, see page 83.

❸ Set the S-VHS System Selector to "ON/AUTO".

❹ Place the S-VHS Movie in the shooting position.
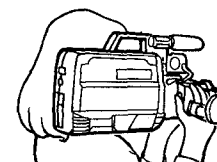
●Grasp the Handgrip and adjust the length of the Grip Belt with the Velcro tape closure to the size of your hand.
●Attach the Lens Cap to the Grip Belt.

❺ Press the Start/Stop Button.
   ●The Recording Indication "REC" is displayed in the EVF and the recording starts.
   ●If the Tally Indicator On/Off Switch on the underside of the EVF is set to "On", the Tally Indicator on the front of the EVF will be lit, to indicate the recording start to the people in front of the camera.

Index Signal Recording Button

To Check a Recording

```
FADE   HIGH      DATE/CLOCK   INDEX   REC
       SPEED SHUTTER                  REVIEW

FOCUS   WHITE BALANCE   GAIN    S-VHS
        OUTDOOR                 OFF
  AUTO                                      ○ S[VHS]
                       ·UP                        625
  MANUAL     INDOOR   ·S.T.D.  ON/AUTO
           COLOUR PHASE   IRIS              ○ STAND BY
  PUSH AUTO

  ZONE SELECT   RED   YELLOW CLOSE   OPEN
```

Standby Button
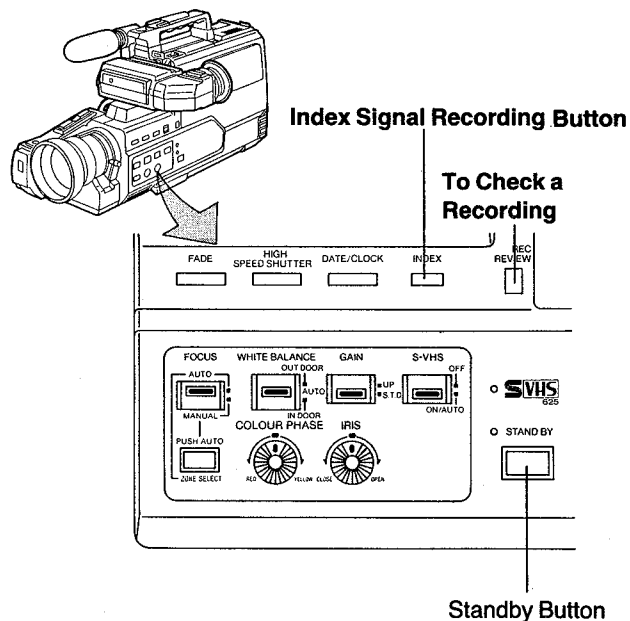
●If the S-VHS Movie is left in the pause mode for more than 6 minutes:
The S-VHS Movie will automatically switch over to the standby mode (viewfinder is off) to protect the tape and save battery power. To switch over to the recording pause mode (viewfinder is on) again, press the Standby Button.
●When the tape reaches its end, the S-VHS Movie will automatically switch over to the stop mode.

⑥ To temporarily stop the recording (recording pause), press the Start/Stop Button again.

⑦ To finish the recording, put the S-VHS Movie in the recording pause mode and then slide the Operation On/Off Switch to the right again to turn the S-VHS Movie off.

To Check a Recording
Press the Rec Review Button whilst the S-VHS Movie is in the recording pause mode.
●The last 2 seconds of the recorded scene will be played back and the S-VHS Movie will again stop in the recording pause mode, ready for further recording.

Notes about Recording the Index Signal
The recording of index signals at the beginning of and during recordings makes possible the use of the Index Search or the Index Scan function when playing back the tape on a VTR equipped with these functions.
An index signal is recorded when one of the following operations is performed.
●When recording is started after turning on the S-VHS Movie.
●When recording is restarted after a pause in recording.
●When the Index Signal Recording Button is quickly and lightly pressed during shooting.

In each of these cases, the "INDEX" indication will flash for a few seconds in the EVF.

●When recording index signals, space the signals at least 2 minutes.

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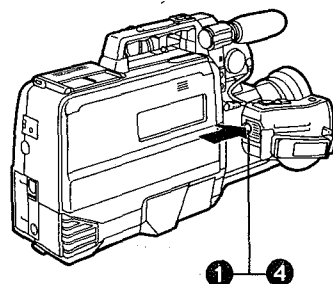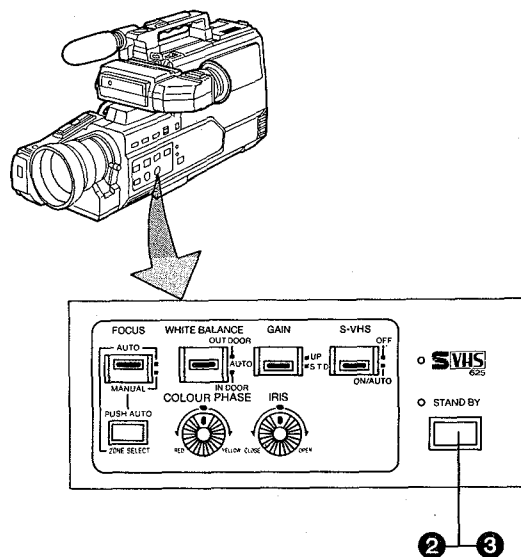
During Recording

❶ Press the Start/Stop Button to stop the recording.

Recording Pause

❷ Press the Standby Button.
- ●The corresponding lamp will lights up.
- ●The S-VHS Movie is now in the standby condition.
- ●No picture can be seen in the EVF.
- ●After putting the S-VHS Movie in the standby mode, wait at least 4 seconds before performing any other operations.

Recording Stop

❸ Press the Standby Button again to make the S-VHS Movie ready for recording the next scene.
- ●It takes about 5 seconds for the picture in the EVF to become stable.

Recording Pause

❹ Press the Start/Stop Button to start recording again.

Rewind

Playback

Fast Forward

VTR PLAY
CAMERA REC

REC   REW⊙—PLAY—⊙FF
INSERT
A.DUB   STOP   PAUSE/
                     STILL

Cue & Review Playback

Still Playback

To Finish Playback
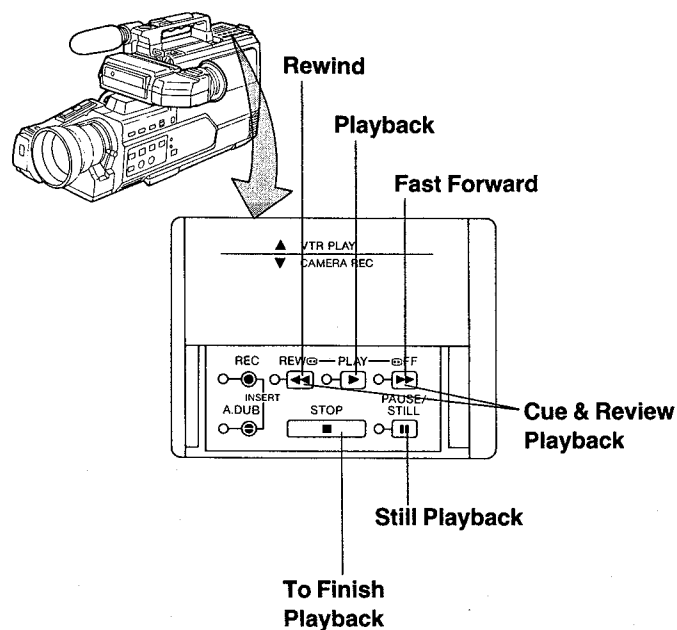
Preparation
1. Slide the Operation On/Off Switch (Operate) to the right to turn the S-VHS Movie on.
2. Insert a recorded tape.
3. Make sure that the Edit Switch is set to "OFF".
4. Slide the Camera/VTR Selector Cover on top of the S-VHS Movie backward.
5. For Playback via a TV set, see "CABLE CONNECTIONS" on pages 71–73.

Fast Forward
Press the Fast Forward Button to rapidly wind the tape forward.
●The tape will stop automatically when it reaches its end.

Rewind
Press the Rewind Button to rewind the tape.
●The tape will stop automatically at the beginning of the tape.

Playback
Press the Play Button.
●The tape will be rewound automatically when it reaches the end.

Cue & Review Playback
When the Fast Forward Button or the Rewind Button is kept pressed while the S-VHS Movie is in the playback mode, the tape will be played back at approx. 3 times normal speed in forward or reverse direction.

Still Playback
When the S-VHS Movie is in the playback mode, press the Pause/Still Button to view a still picture. To continue the normal playback, press this button again.

To Finish Playback
Press the Stop Button.

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●Tracking Control
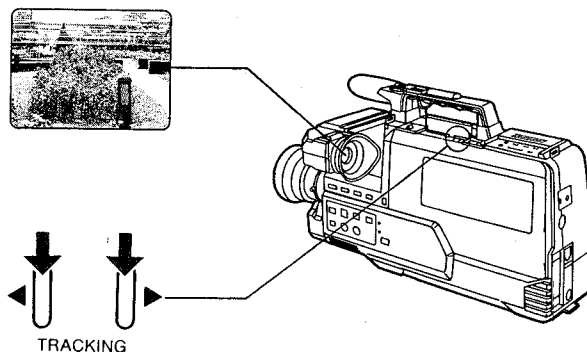
TRACKING

●When the playback picture contains noise bar distortion as shown in the picture above, it can be eliminated by pressing the Tracking Adjust Button.
To return the tracking control to the former setting, press the two buttons simultaneously.
●When playing back a tape which has been recorded on another video recorder, it may not be possible to completely eliminate this distortion.
●Noise which takes the form of horizontal bars appears in the Cue, Review and Still playback modes. This is not an indication of a malfunction.
●If the S-VHS Movie is left in the Still Playback mode, for more than about 6 minutes, the S-VHS Movie will switch over to the stop mode to protect the tape and the video heads.

Tape Counter and Memory Function

Press the Reset Button at a desired point and then press the Memory Button.
●The Tape Counter is reset to "0000" and the Memory Indicator "M" appears.

M0000

COUNTER
RESET   MEMORY

DIS AY
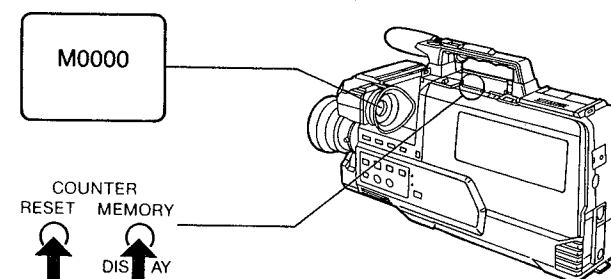
After pressing the Stop Button to end the playback, press the Rewind/Review Button.
●The tape will automatically stop at about the point where the Tape Counter reads "0000".

Counter Indication

By repeatedly pressing the Memory Button, the Counter Indication can be changed in the following sequence.

Tape Counter Indication	Memory appears with Tape Counter Indication	Lap Time Counter Indication (Real Time) appears	No indication
0000	M0000	Second 0:00.00 Minute Hour	
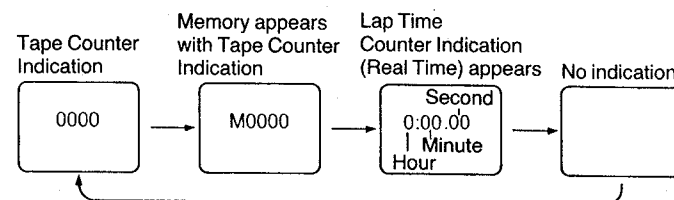
●The indication of the Lap Time Counter counts only during recording.

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How to Insert the Battery for the Clock Operation

❶ Remove the lid on the bottom of the S-VHS Movie with a (+) screwdriver.
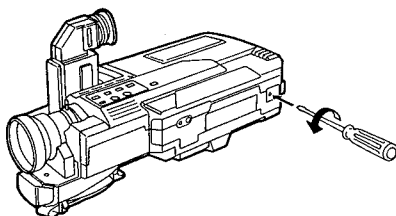
❷ Insert the "LR1130" size battery with the polarities (⊕ and ⊖) aligned correctly and then replace the lid.
● The clock starts working as soon as the battery is inserted.
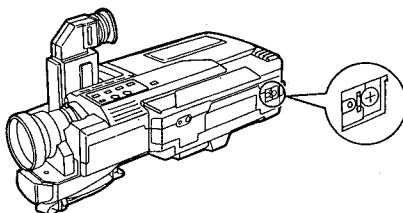
The "LR1130" size battery (supplied) is necessary for the operation of the built-in digital clock, and to memorize the Date/Clock Indications when the S-VHS Movie is turned off.

Cautions
● When this battery is almost exhausted, the whole time and date indication will flash.
● When this battery is completely exhausted, the indication "PLEASE SET BATTERY" will appear.
● To make this indication disappear, press the Date/Clock Selector twice.
● If this indication is still displayed after the battery has been replaced, turn the S-VHS Movie off and then on again.

CAUTION FOR BATTERY REPLACEMENT
● The life of the battery is about one year. Inspect and if necessary, replace the battery once a year.
● Load the new battery with their polarities (⊕ and ⊖) aligned correctly.
● Do not apply heat to battery, or internal short-circuit may occur.
● Remove spent battery immediately and dispose of it.

ENGLISH
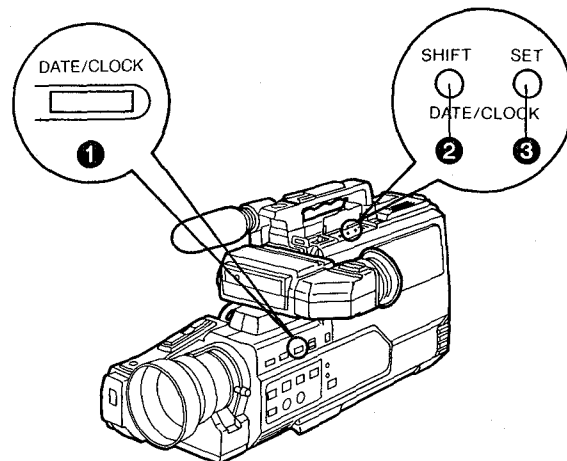
❶ When the Date/Clock Selector is pushed, the indication shown on the right will appear in the EVF.

```
0 : 12
1.  1.1987
```

●If no battery is inserted, the indication "PLEASE SET BATTERY" will light up. In this case, insert the battery as described on page 69.

❷ Press the Shift Button until the portion of the indication, that you want to change, is flashing.

Year —→ Month —→ Date —→ Hour —→ Minute

❸ Press the Set Button repeatedly to change the flashing portion of the indication. At every press of this button, the flashing portion will be changed in the following sequence.

YEAR: 1987→1988→ .... →2086

MONTH: 1→2→ .... →12

DATE: 1→2→ · · · · · · →28→(29)→(30)→(31)

HOUR: 0→1→ .... →23

MINUTE: 00→01→ .... →59

●Repeat procedures ❷ and ❸ until all five items have been set.
●As soon as the actual time corresponds exactly with the set time, press the Shift Button to start the clock.

Recording the Date/Clock Indications
When the Date/Clock Selector is pushed repeatedly, the indication will change in the following sequence.

To record neither the Date nor the Clock Indication:	To record the Date and Clock Indications:	To record only the Date Indication:
	23:59 25.12.1988	25.12.1988

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Connection to a TV Set with Video and Audio Input Sockets

When using the Battery Pack as power source:
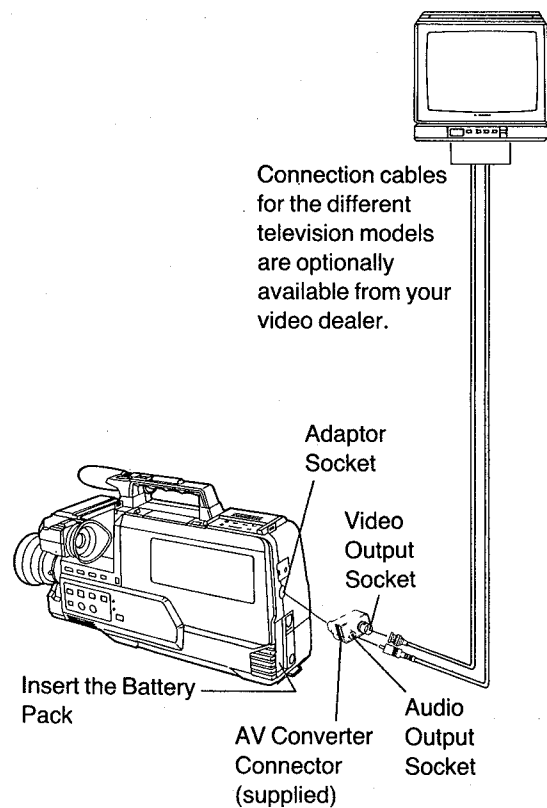
When using a car battery cord as power source:

Connection cables
for the different
television models
are optionally
available from your
video dealer.

Adaptor
Socket

Video
Output
Socket

Insert the Battery
Pack

AV Converter
Connector
(supplied)

Audio
Output
Socket

Connection cables for
the different television
models are optionally
available from your
video dealer.

12 V NEG GND

Car Battery
Cord (optional)

Adaptor
Socket

Audio
Output
Socket

Video
Output
Socket

ENGLISH

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When using an AC adaptor:

Connection cables for the different television models are optionally available from your video dealer.

Adaptor Socket

Video Output Socket

AC Adaptor

"ON"

Audio Output Socket

When using an AC adaptor:

TV Set with an S-Video Input Socket (optional)

To S-Video Input Socket

Adaptor Socket

S-Video Cord (supplied)

Connection cables for the different television models are optionally available from your video dealer.

S-Video Output Socket

Video Output Socket

AC Adaptor

"ON"

Audio Output Socket

S (Separate)-Video Output Socket

The conventional video jack of VTRs outputs a combination of the luminance (Y) and color (C) signals which are recorded on the video tape. The new S (Separate)-Video Socket allows separate transmission of the two signals (Y) and (C) to a TV set or another VTR equipped with an S-Video Socket for improved picture quality and color fidelity.

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An AC adaptor is required:
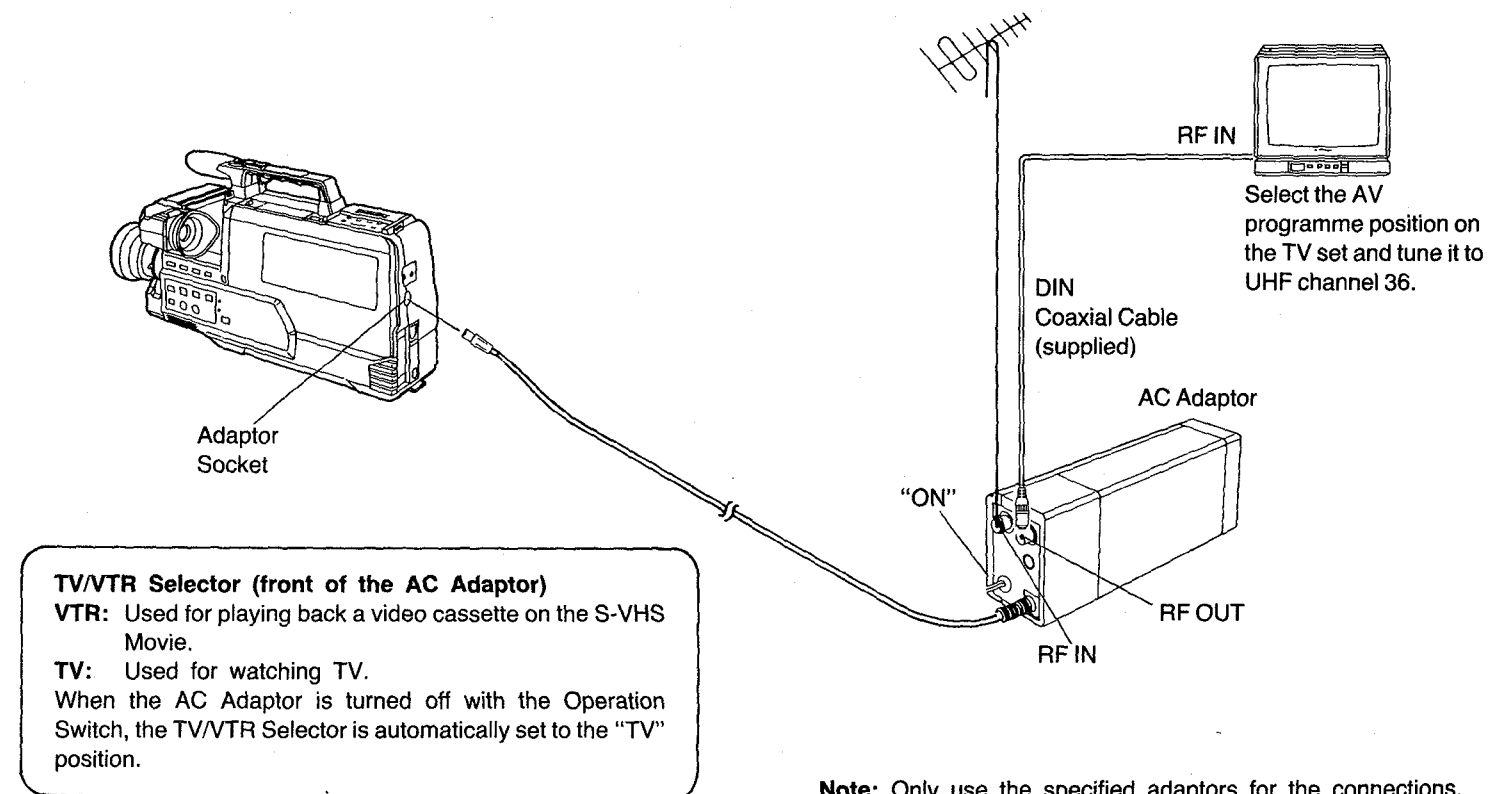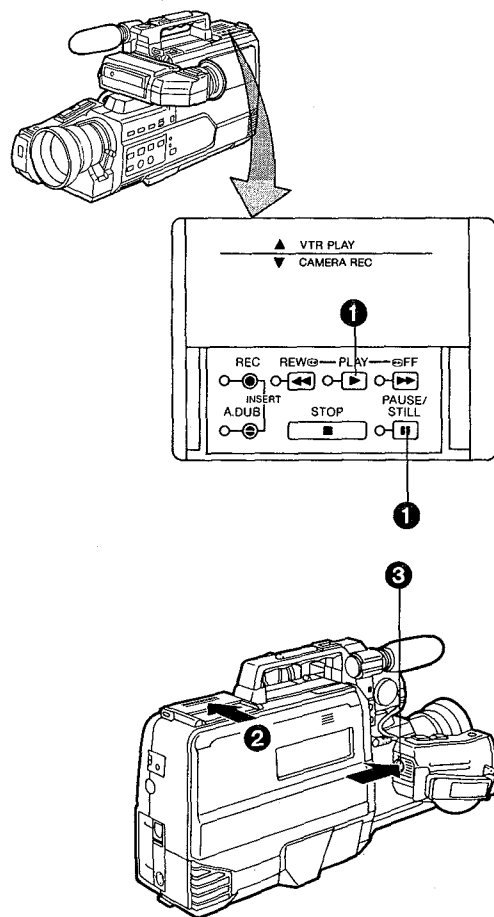
RF IN

Select the AV
programme position on
the TV set and tune it to
UHF channel 36.

DIN
Coaxial Cable
(supplied)

AC Adaptor

Adaptor
Socket

"ON"

TV/VTR Selector (front of the AC Adaptor)
VTR: Used for playing back a video cassette on the S-VHS
Movie.
TV: Used for watching TV.
When the AC Adaptor is turned off with the Operation
Switch, the TV/VTR Selector is automatically set to the "TV"
position.

RF OUT

RF IN

Note: Only use the specified adaptors for the connections.

ENGLISH

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VTR PLAY
CAMERA REC

REC   REW — PLAY — FF
INSERT
A.DUB   STOP   PAUSE/STILL

Preparation
- Insert a video cassette with erasure prevention tab.
- Slide the Camera/VTR Selector Cover on top of the S-VHS Movie backward.

❶ Press the Play Button to locate the point where the new recording is to be joined (Assemble Editing), and press the Pause/Still Button at the desired point.

❷ Slide the Camera/VTR Selector Cover on top of the S-VHS Movie forward.

❸ Press the Start/Stop Button.

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(Insert these scenes from the Camera)

(Already recorded tape)

(Tape after Insert editing)

The insert editing portion should be recorded in the same video system as the already recorded portions on the tape.
- If the S-VHS Indicator is lit during playback, the recording was made in the S-VHS system. Therefore, set the S-VHS System Selector to "ON/AUTO".
- If the S-VHS Indicator is not lit during playback, the recording was not made in the S-VHS system. Therefore, set the S-VHS System Selector to "OFF".

❶ Slide the Camera/VTR Selector Cover on top of the S-VHS Movie backward.

❷ Locate (by using the Play, Fast Forward/Cue, Rewind/Review Button) the point where the Insert Editing is to finish, and press the Pause/Still Button at that point.

❸ Press the Reset Button. Then press the Memory Button so that the indication "M" appears.
Press the Pause/Still Button.

> M0000

❹ Locate (by using the Play, Fast Forward/Cue, Rewind/Review Buttons) the point where the Insert Editing is to start, and press the Pause/Still Button at that point.

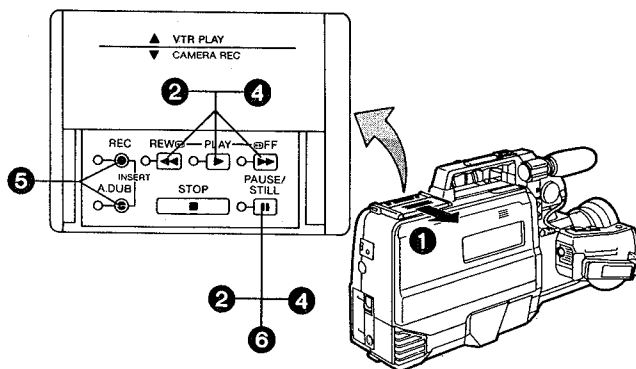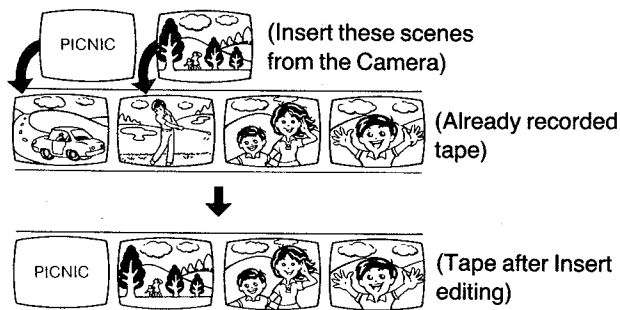❺ Press the Record Button and the Audio Dubbing Button at the same time. "_ _ _" will be displayed in the EVF and the S-VHS Movie will be in the Insert Editing Pause mode.

❻ After preparing the scene which will be inserted, press the Pause/Still Button. "INST" will be displayed in the EVF and the Insert Editing will start.
- The Insert Editing will end at about the point where the Tape Counter reads "0000" and the S-VHS Movie will change over to the Still Playback mode.
- Do not press the Pause/Still Button during the Insert Editing.
- In Insert Editing, only the new video signals are recorded, but the original sound remains on the tape.

ENGLISH

DUBBING (COPYING)

Connection of the S-VHS Movie with a Video Recorder

For Recording

For Playback

Edit
Switch

To S-Video
Input Socket

S-video
Cord
(supplied)

S-Video
Output
Socket

Adaptor
Socket

Video
Output
Socket

Connection cables
for the different
television models
are optionally available
from your video dealer.

AC Adaptor

Audio
Output
Socket
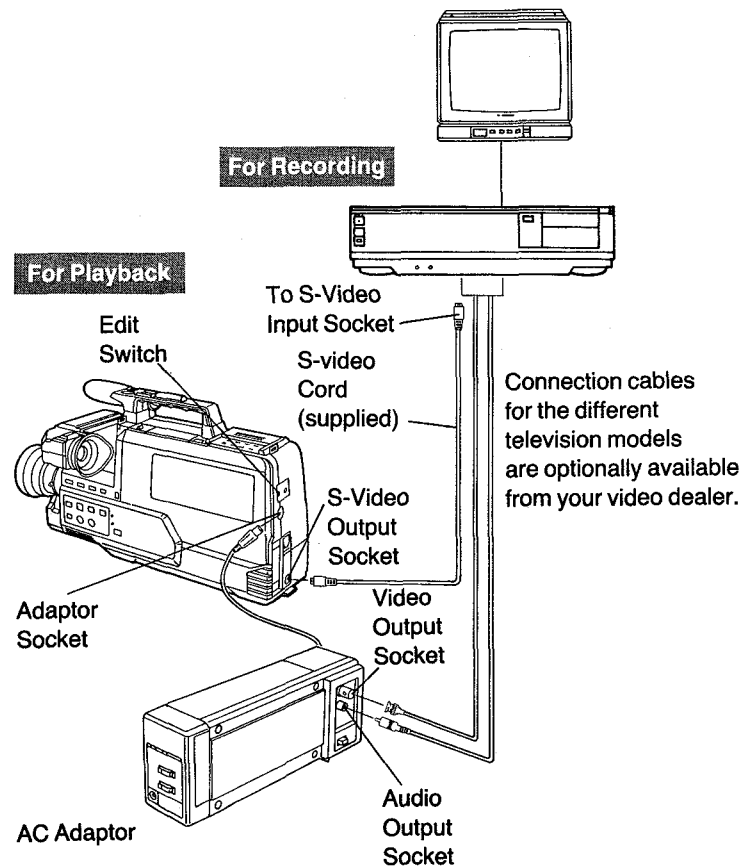
❶ Place the VTR into the recording pause mode, at the point
where the dubbing is to start.

❷ Set the Edit Switch on the S-VHS Movie to "ON".

❸ Locate the exact point on the tape in the S-VHS Movie from
where you want to start copying and put the S-VHS Movie into
the still playback mode.

❹ Press the Pause/Still Button on the S-VHS Movie and on the
VTR to start the copying.

● The picture quality of a copied tape is inferior to that of the original
tape.
If the VTR used for dubbing features 2 tape speeds, select the
normal speed (SP mode) for the best result.
● When a tape, that was originally recorded on the S-VHS Movie
and that later has some scene added on a VTR by using the
Insert Editing function, is again played back on the S-VHS Movie,
the playback of the inserted part may be affected by uneven
colour and coloured stripes.

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Audio Dubbing can be performed by using the built-in microphone or an external microphone. If an external microphone is connected, the built-in microphone is automatically switched off.
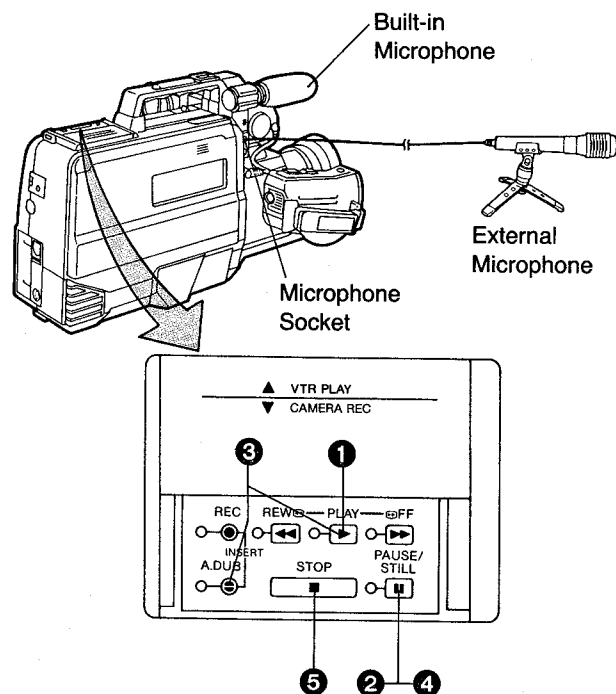
Built-in
Microphone

External
Microphone

Microphone
Socket

▲ VTR PLAY
▼ CAMERA REC

❸   ❶

REC   REW━━PLAY━━FF

INSERT   PAUSE/
A.DUB   STOP   STILL

❺ ❷━❹

Preparation
● Insert a video cassette with erasure prevention tab.
● Slide the Camera/VTR Selector Cover on top of the S-VHS Movie backward.

❶ Press the Play Button and find the point where you want to start the Audio Dubbing.

❷ Press the Pause/Still Button at the exact point where you want to start the Audio Dubbing.

❸ Press the Audio Dubbing Button and the Play Button at the same time.

❹ Press the Pause/Still Button once again to release the tape from pause. The Audio Dubbing will start.

❺ Press the Stop Button to stop the Audio Dubbing.

Microphone Sensitivity Selector
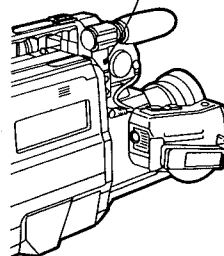
The sensitivity of the Microphone can be increased by setting the Microphone Sensitivity Selector to "HIGH". Usually, this selector is left in the "NORMAL" position.
● If this selector is switched from "HIGH" to "NORMAL" during recording, the recording of the audio signal will be interrupted for a few seconds.

ENGLISH

TECHNIQUES FOR SHOOTING

White Balance

With video cameras, just as with films and photos, the color temperature of light measured in Kelvin (K) must be considered in order to attain color-true recordings. In the table (see page 79) there are examples listed for some situations and light sources. The adjustment necessary for attaining natural colors is called WHITE BALANCE.
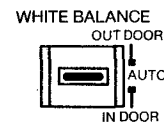
There are two possibilities for adjusting the S-VHS Movie to the color temperature of the light (white balance):

—automatic white balance
—adjustment to fixed values and simultaneous use of filters.

WHITE BALANCE "AUTO"

WHITE BALANCE Within the range of about 2500 K to 5500 K, the use of the automatic white balance can be of advantage. It is especially advantageous if, for example, the transition from artificial light to daylight—or vice versa—is carried out during a scene.

Fixed Value "OUTDOOR"
for Outdoor Recordings

WHITE BALANCE When working with the fixed value "OUTDOOR", an adjustment to a color temperature of 5500 K is fixed. By using additional filters for the adaption of the color temperature of light to the adjusted fixed value, excellent results can be reached outside the automatic range. The table (see page 79) contains filter recommendations for the named examples.

Fixed Value "INDOOR"
for Indor Recordings with Halogen Lights

WHITE BALANCE When working with the fixed value "INDOOR", an adjustment to a color temperature of 3200 K (halogen light) is made.

Automatic White Balance
for Indoor Recordings
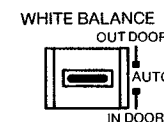
WHITE BALANCE For indoor recordings with artificial light—especially with candle light—the color cast toward slightly red is desired. In this case one can work successfully with the automatic.

Filter Recommendations for Position "OUTDOOR"

Color Temperatures

KR9	(85C)	10 000 K		— Blue Sky
KR6+KR2	(81F+81A)	9 000 K		— TV Screen
KR6	(81F)	8 000 K		— Rain
KR3	(81C)	7 000 K	} Very Cloudy Sky	
KR2	(81A)	6 000 K	} Lightly Clouded Sky	
	→	5 000 K	—OUTDOOR — Sunlight	
Control Range of the White Balance Automatic		4 000 K	— Fluorescent Lamp, White	
		3 000 K	—INDOOR — Halogen Lamp	
		2 000 K	— Light Bulb, White	
	→	1 000 K	— Candle Light	

Kelvin (K) is used as a measuring unit for the color temperature of light. The higher the Kelvin value is, the more bluish the light is; the lower the value, the more reddish the light is.

Hints for White Balance in AUTO Operating Mode

In the operating mode AUTO the white balance can be inaccurate under circumstances if the illumination
—varies for the object and the sensor of the S-VHS Movie;
—is insufficient (less than 7 Lux).

Fading In and Out

You can fade out by pressing the button FADE; when you let go of this button, you fade in again.

Fade-In ————————————————→

FADE

←———————————————— **Fade-Out**
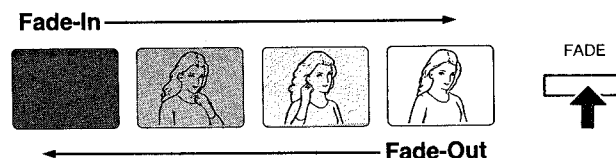
High Speed Shutter

The S-VHS Movie has 4 different shutter speeds:

HIGH SPEED SHUTTER

1/50 s normal shutter speed

1/250 s electronic high speed shutter

1/500 s electronic high speed shutter (corresponds to a stop down by 3 iris steps, minimum illumination 150 lux).

1/1000 s electronic high speed shutter (corresponds to a stop down of 4 iris steps, minimum illumination 300 Lux).

By repeatedly pushing the High Speed Shutter Selector, the shutter speed can be changed as follows:
1/250 sec.→1/500 sec.→1/1000 sec.→Normal.

For videographing of fast movements, the shutter speed can be set to 1/250, 1/500 or 1/1000 with the switch HIGH SPEED SHUTTER.

With a video recorder equipped with the playback functions super still picture, super single frame and super slow motion, sharp-contoured pictures can be played back in these functions.

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Pick-up Element Gain Switch

This switch can be used to increase the sensitivity of the CCD image pick-up element.
when shooting under conditions with weak illumination (less than approximately 200 lux), set this switch to the "UP" position.
"UP": Used to increase the brightness of the picture.
"S.T.D.": This position is used for normal lighting conditions.

GAIN

⬆ [▭] •UP
　　　 •S.T.D
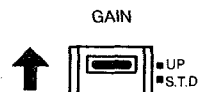
Light and Contrast

Contrast Range
The ratio of dark to light picture portions is called contrast. Image sensors in video cameras and camera recorders can process a contrast ratio of about 1:64, correpsonding to 6 iris steps.

Luminous Intensity
Luminous intensity is a measure for the existing amount of light and is measured in Lux. The following table shows a few examples.

(Lux)	(Site or Type of Illumination)
10–15	●Candle light
1 000	●Sunlight, one hour before sunset, clear day
2 000	●Sunlight, one hour after sunrise
2 500	●TV studio
25 000	●Sunlight, 10 a.m., cloudy day
32 000	●Sunlight at noon, cloudy day
35 000	●Sunlight, 3 p.m., clear day
65 000	●Sunlight, 10 a.m., clear day
100 000	●Sunlight at noon, clear day

The table shows a luminous intensity range from 10 Lux to 100 000 Lux. This corresponds to a ratio of 1:10 000.

The S-VHS Movie can process a great deal more than this range and thus is on the safe side. This conclusion, however, is only correct inasmuch as it concerns the maximum amount of processable light.

The explanation for the overmodulation sometimes occurring in bright portions of the pictures is found in the fact that n these cases, the maximum contrast (approx. 1:64) has been exceeded.

A look behind the scenes of TV professionals helps to understand this situation: they put up many spotlights—even during outside shooting—and not because they need that much light. They simply "brighten up" the scene. but brightening up means: dark picture portions are illuminated and hard shadows are avoided. When the dark parts are made brighter, then the contrast is automatically reduced! That is the whole secret.

How the Exposure automatic Works

About in the lower two-thirds of the picture section the average brightness is determined and then the control and iris adjustment are carried out. Hereby it depends on the contrast ratio between picture sections I:II whether it comes to overmodulations or not:
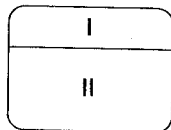
In the table some experimental values about contrast ratios of certain scenes are listed. the examples named here should serve as reference points and give the videographer a feeling for critical and uncritical objects.

Examples for contrast Ratios

Normal Object (countryside with little foreground, no large
sunlit areas) 1:30

Countryside with foreground, Clouds, Sun 1:50

Portraits, narrow streets, forests, looking through windows
or doors, a line of buildings in front of sky 1:100–1:300

Painted pictures 1:30

Photos 1:15

View into a valley, aerial photograph, oblique 1:30

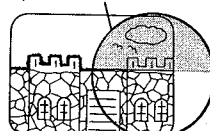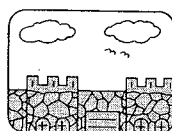Aerial photograph, vertically.............................1:10

Tricks and Hints

Problem 1: Horizontal line at about ⅔ picture height.
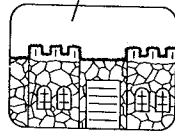
Overmodulations 1)   2) Graded Filter

Remedy:
1) Shift the horizontal line downwards.
2) Use a graded filter.

Problem 2: Counterlight situation or reflections.
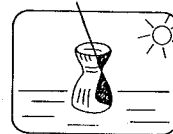
Overmodulations   1)   2)   Polarization Filter
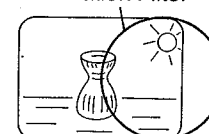
Remedy:
1) Change location of the camera.
2) Use a polarization filter (circular).

Problem 3: Close-ups in front of a restless background.

Gray filter (ND)

Remedy:
The brightness is reduced by using gray filters; thus the iris is opened and the depth of focus is reduced.

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Colour Phase Control

If the skin colour tones are not satisfactory due to special illumination, etc., adjust with the Colour Phase Control.

●Normally, set this control to the center click position.

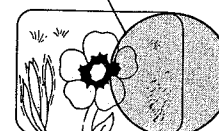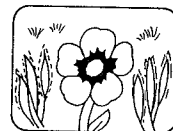●Control the tint before—and if necessary during—shooting while watching the picture on a colour monitor or TV set.

When the picture has a reddish tint:
Turn toward "YELLOW".

COLOUR PHASE

When the picture has a yellowish tint:
Turn toward "RED".

COLOUR PHASE

Iris Close/Open Adjustment Control

When a subject is backlit
Turn in the "OPEN" direction.

IRIS

●When shooting a backlit subject, be careful that the lens is not aimed at extremely bright light.

When the picture is too bright
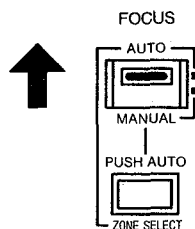Turn in the "CLOSE" direction.

IRIS

●For normal lighting conditions, this control should be set to the center detent position. (Automatic adjustment)

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Focus

Auto Focus

Set the Focus Mode Selector to "AUTO".

● While watching the picture in the EVF, aim the S-VHS Movie at the subject on which you want to focus.

FOCUS
AUTO
MANUAL
PUSH AUTO
ZONE SELECT

Note
This Auto Focus system does not measure the actual distance but adjusts the lens to the optimum focusing condition based on the video signal. Therefore, the distance setting on the lens may be different from the actual distance in some cases. However, this is not an indication of a malfunction.

Focusing Zone Selection with the "ZONE SELECT" Button
The size of the focusing zone is selected by pressing the button "ZONE SELECT". The focus will automatically be adjusted to the object within the focusing zone.

FOCUS
AUTO
MANUAL
PUSH AUTO
ZONE SELECT
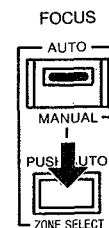
Every time the S-VHS Movie is turned on, the smaller focusing zone frame is automatically selected. Use this setting when shooting at the wide position of the zoom lens or when the subject to be shot is very small.
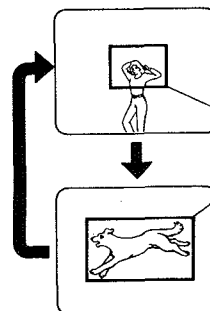
> Focusing Zone Frame

Set to this size to shoot a moving subject or for panning and tilting.

ENGLISH

Manual Focus

1 Set the Focus Mode Selector to "MANUAL".

FOCUS
AUTO
MANUAL
PUSH AUTO
ZONE SELECT

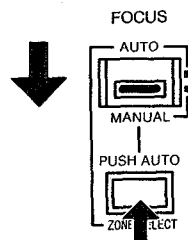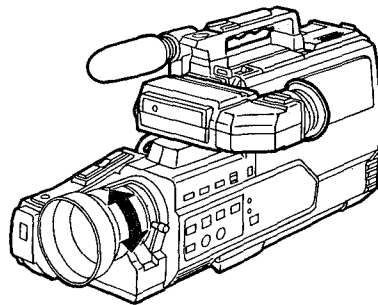In the Manual Focusing mode, momentary automatic focus adjustment is possible for as long as the "PUSH AUTO" Button is kept pressed.

2 Turn the Focus Ring to adjust the focus.

In the following shooting conditions, the Auto Focus system will not be able to provide stable and exact focus adjustment. Set the Focus Mode Selector to "MANUAL" in such cases and adjust the focus by turning the Focus Ring.

1. When shooting a subject through dirty glass.
2. When shooting subjects with shiny surfaces.
   (The focusing zone frame may disappear.)
3. When shooting a subject with a part of it near and another part far from the S-VHS Movie.
4. When shooting an oblique subject.
5. When shooting a subject with distinct horizontal stripes.
6. When shooting a flat subject such as a white wall.
7. When no part of the subject is within the focusing zone frame.
8. When shooting with the macro close-up function or with special lenses or filters.
9. When shooting a fast-moving subject.
10. When shooting a dark subject.
    (The focusing zone frame may go on and off.)

Zooming

Power Zooming
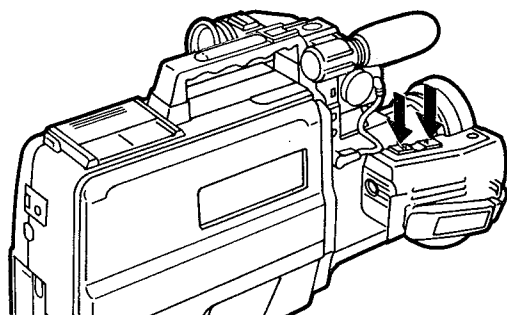
To zoom to wide-angle, press the "W" Button.

To zoom to telephoto, press the "T" Button.

Manual Zooming

Use the Manual Zoom Lever.
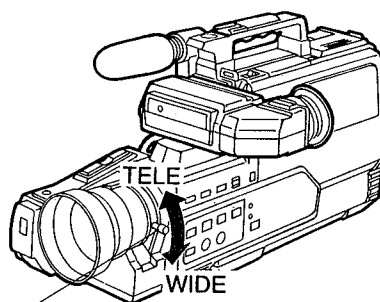
Manual Zoom Lever

Macro Close-Up

The focus can be adjusted within this range.

WHITE BALANCE
OUT DOOR
AUTO
IN DOOR
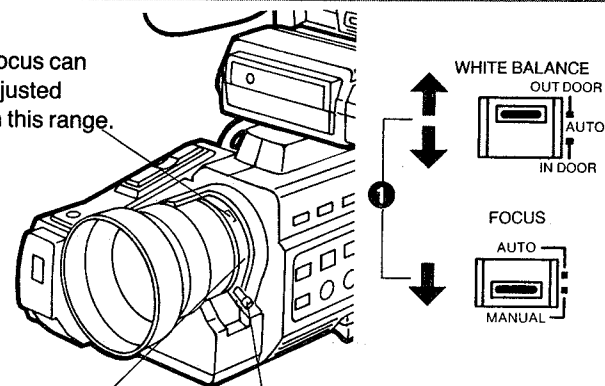
FOCUS
AUTO
MANUAL

② ③ Zoom Ring   ③ Manual Zoom Lever

Shooting Small Objects

The macro function allows shooting small plants and tiny insects. It is also possible to shoot photos from a photo album.
(The focus can be adjusted within a distance of 1.2 m.)

❶ Set the White Balance Mode Selector to the "INDOOR" or "OUTDOOR" position and set the Focus Mode Selector to "MANUAL".

❷ Turn the Zoom Ring all the way down to the click stop.

❸ To enter the macro range, pull the Manual Zoom Lever outward and turn the Zoom Ring further down.
Turn the Zoom Ring slowly to focus on the desired object.

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Accessories

How to Attach the Shoulder Strap

2
About 2 cm of end of
strap should protrude.
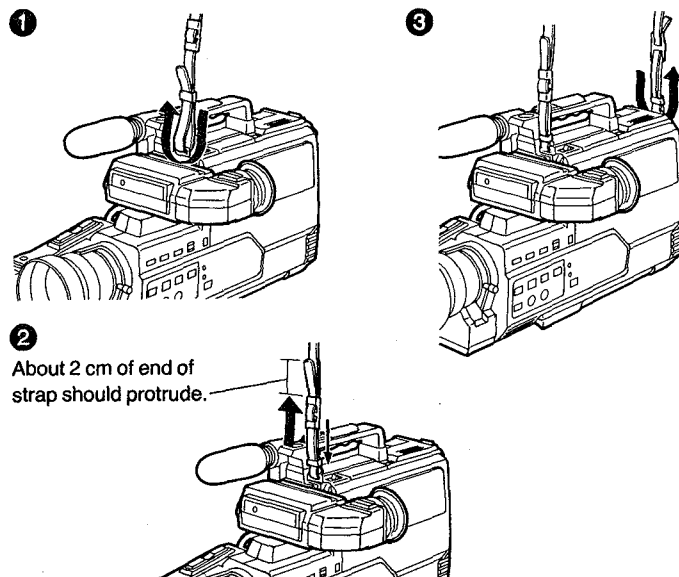
1 Pass the end of the Shoulder Strap through the slit of the Shoulder Strap Holder on the front of the S-VHS Movie.

2 Securely attach the end of the Shoulder Strap.

3 Attach the other end of the Shoulder Strap on the rear of the S-VHS Movie in the same way as mentioned above.

How to Attach the Shoulder Pad (optional)
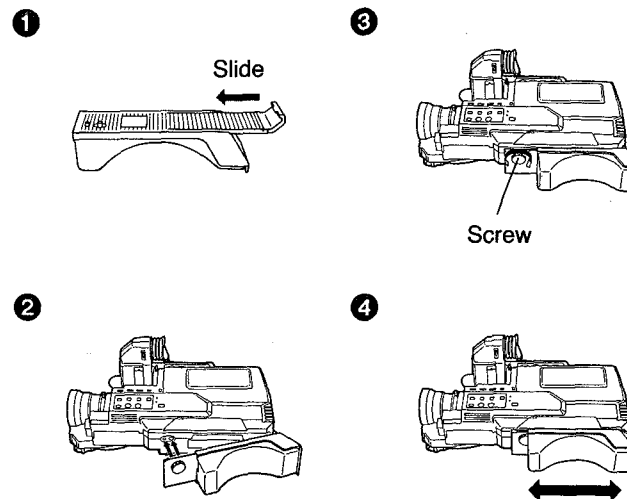
Slide

Screw

1 Slide the base to forward.

2 Insert the protruding knob on the back of the S-VHS Movie into the hole on the end of the base and align the lug and screw with the 2 holes on the S-VHS Movie.

3 Tighten the screw.

4 Adjust the pad to the most comfortable position.

How to Mount the S-VHS Movie on a Tripod (optional)

Bottom side of the S-VHS Movie

Tighten the screw

Align the mounting holes

●Place the tripod on a stable surface, with its legs fully spread.

How to Use the Pause Remote Control Unit and Earphone

Recording Indicator

Remote Control Socket

Pause Remote Control Unit (optional)

Earphone Socket

Earphone
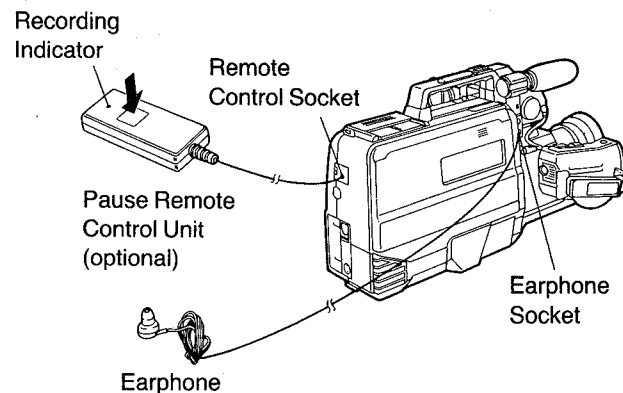
Using the Character Generator (optional)

The use of the Character Generator makes it possible to record titles, time, date and stopwatch while shooting some scene.

How to Attach the Character Generator
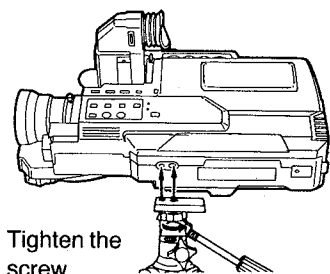●Before attaching the Character Generator, turn the S-VHS Movie off with the Operation On/Off Switch.

❶ ❸ EVF Cord

EVF Cord

Character Generator Cord

❷ Accessory Shoe

EVF/Character Generator Terminal
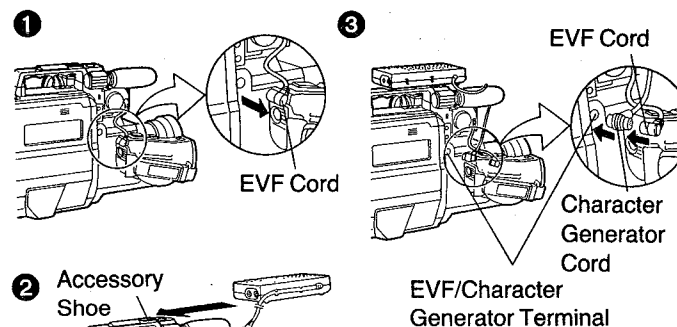
❶ Disconnect the EVF Cord.

❷ Attach the Character Generator to the Accessory Shoe.

❸ Insert the plug of the EVF Cord into the back of the plug of the Character Generator Cord and insert them together into the EVF/Character Generator Terminal.

●For the operation of the Character Generator, see the operating instructions of the Character Generator.

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Video Head Clogging

The video heads are the means by which the S-VHS Movie places picture signals on the tape during recording, and reads picture signals from the tape during playback. If these heads become dirty and clogged from long use, the signals can no longer be recorded correctly, and the playback picture will be distorted accordingly. This is the case, for example, during the playback of a tape, the sound of which is reproduced normally, but no picture is seen, or the picture is greatly distorted. When such symptoms occur, have the S-VHS Movie checked by qualified service personnel.

If Condensation Forms Inside the S-VHS Movie

Condensation (dew) forms when warm air comes in contact with a cold object.

Condensation may form in the S-VHS Movie and damage the tape and the video heads, if:
●The S-VHS Movie is in a room where the heater has just been turned on.
●The S-VHS Movie is in a room with steam or high humidity.
●The S-VHS Movie is brought from cold surroundings into a well-heated room.
●The S-VHS Movie is suddenly brought from cool surroundings, such as an air-conditioned room or car, to a place which is hot and humid.
●When condensation has formed inside the S-VHS Movie, the "DEW" indication in the EVF will flash and a few seconds later, the unit will turn itself off to protect the tape and the video heads. If a cassette is inside the S-VHS Movie, press the Eject Button immediately and take out the video cassette.

After a while, turn the unit on again and check whether the "DEW" Indication is still flashing. Then, wait about 1 hour before operating the S-VHS Movie again. Depending on the surrounding conditions, it may take several hours before the S-VHS Movie can be used again.
●As condensation forms gradually, it may take about 10-15 minutes before the S-VHS Movie turns itself off after a change of working environment.
●In an extremely cold place, condensation may freeze and turn into frost. In this case, it may take quite some time for the frost to melt, turn into dew and evaporate.
●When you bring the S-VHS Movie from a very cold place, e.g. the ski slopes, into a heated room, keep it in a tightly closed plastic bag or similar to prevent condensation from forming inside the S-VHS Movie.

Surrounding Conditions

Use the S-VHS Movie under conditions where the temperatures are between 0°C and 40°C, and where the humidity is between 10% and 80%. To avoid deformation of the outer case or other damage, do not leave it exposed to direct sunlight for any length of time, also never leave it in a closed automobile.

Keep the S-VHS Movie Away from Areas with Strong Magnetic Fields

If the S-VHS Movie is used very close to strong magnetic fields, e.g. speakers, motors or transmitting equipment, the picture and sound quality may be negatively influenced.

Never Place the S-VHS Movie with the Cassette Compartment Side Facing Down

Never use the S-VHS Movie with the cassette compartment facing down as this might cause uneven winding and slacking of the tape.

Cover the Lens with the Cap after Shooting

When the S-VHS Movie is not Being Used

Remove the video cassette and turn the S-VHS Movie off with the On/Off Switch.

Handle with Care

Do not drop the S-VHS Movie or expose it to strong physical shocks. To prevent malfunction, do not insert any objects into the S-VHS Movie or touch any parts inside it.

Cleaning the S-VHS Movie

●The body of the S-VHS Movie is made of plastic materials. Do not use benzine, thinner or other chemicals for cleaning, because the colour might be changed and the case surface might be damaged.
●Wipe the case and operation panel with a soft, clean cloth. For persistent stains, use a cloth moistened with mild detergent and water, and then wipe with a dry cloth.
●Clean the lens only with a blower brush (used for photo cameras) or a special lens cleaning tissue (used for glasses and cameras).

ENGLISH

BEFORE REQUESTING SERVICE

Power Source

●The power does not turn on.
—Is the power supply unit correctly connected to the S-VHS Movie?
●The power turns on, but it turns off again immediately.
—If the Battery Pack is exhausted, replace it with a fully charged one.
—If condensation has formed, wait until it has dissolved.

Camera Recording

●The power is on, but no picture appears in the EVF.
—Is the lens covered with the lens cap?
●Camera recording cannot be performed.
—If the tab of the cassette is broken out, cover the tab hole with adhesive tape.
●The picture is not clear.
—Is the eyepiece correctly adjusted to your eyesight?
—Is the lens surface dusty?
●The Auto Focus system does not provide optimum focus adjustment.
—Is the Focus Mode Selector set to "AUTO"?
—For shooting conditions where the "AUTO" setting of the Focus Mode Selector cannot provide optimum focus adjustment, set the selector to "MANUAL" and adjust the focus.

Playback

●No playback picture is reproduced.
—Is the connection to the TV set correct?
—Is the TV set tuned to the video playback channel?
●The colours are not correct.
—Is the colour adjustment of the TV set correct?
●The playback picture is not in colour.
The playback picture has large amounts of "snow".
—Adjust the tracking.
—If the tape is old, use a new tape.

SPECIFICATIONS

S-VHS Movie

Power Source:	DC 12 V
Power Consumption:	Recording mode; 12 V—9.0 W (Battery Operation)
	Stand-by mode; 12 V—1.0 W (Battery Operation)

Video Recording System: 4 Rotary heads, helical scanning system
Tape Speed: 23.39 mm/s
Tape Format: S VHS & VHS tape
Recording/Playback Time: 240 min. with M-E240 VHS
     180 min. with S-180 S VHS
FF/REW Time: Less than 12 min. with M-E180

VIDEO
  Television System: CCIR; 625 lines, 50 fields PAL colour signal
  Output Level: ADAPTOR (Multi);   1.0 Vp-p   7.5 ohm unbalanced

AUDIO
  Input Level: MIC IN (M3);   −70 dB   4.7 kohm unbalanced
  Output Level: ADAPTOR (Multi);   −8 dB   600 ohm unbalanced
  Audio Track: 1 track (MONO)
Image Sensor: ½-inch CCD Image Sensor
Lens: 10:1 Power Zoom Lens with MACRO Function, Auto Iris.
     Auto Focus System F1.4 (8–80 mm)
     Lens Front Diameter 55 mm

ENGLISH

Viewfinder:	0.9-inch Electronic Viewfinder
Standard Illumination:	1,400 Lux
Minimum Required Illumination:	7 Lux (Gain up)
Video Horizontal Resolution:	Colour; More than 400 lines (S-VHS)
Audio Frequency Response:	80 Hz–8 kHz
Operating Temperature:	0°C–40°C
Operating Humidity:	10%–80%
Weight:	Approx. 2.7 kg (without Battery Pack)
Dimensions:	127 (W)×223 (H)×417 (D) mm (with Viewfinder turned down)

AC Adaptor

Power Source:	AC 100–240 V, 50–60 Hz (Automatic voltage adjustment)
Power Consumption:	44 W
DC Output:	DC 12 V 1.2 A, DC 20 V 0.1 A (S-VHS Movie)
	DC 12 V 1.5 A (Battery pack charging)

RF Modulated:	UHF channel 36 (±4), 75 ohm, unbalanced
Weight:	Approx. 0.86 kg
Dimensions:	63 (W)×84 (H)×219.5 (D) mm

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.